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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,818	11/21/2000	Joseph Mulavelil George	AUS9-2000-0552-US1	2114
35525	7590	04/22/2008	EXAMINER	
IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380			ROBINSON, GRETA LEE	
			ART UNIT	PAPER NUMBER
			2168	
			NOTIFICATION DATE	DELIVERY MODE
			04/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeeiplaw.com

Office Action Summary	Application No. 09/717,818	Applicant(s) GEORGE ET AL.	
	Examiner Greta L. Robinson	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the appeal brief filed on January 14, 2008, PROSECUTION IS HEREBY REOPENED. A new grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Tim T. Vo/

Supervisory Patent Examiner, Art Unit 2168

Drawings

2. The drawings were received on January 11, 2005. These drawings are acceptable.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 13-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e. abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that

the claims for an algorithm in Benson were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Regarding independent claim 13, the specification provides evidence at page 6 line 1 through page 7 line 5, that the “medium” and system may be implemented as software. If elements would have been reasonably interpreted in light of the disclosure by one of ordinary skill as software alone, the claim is directed to software *per se* and is nonstatutory. Claims 14-18 are rejected based on dependency.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation “set of dependencies” does not appear to be defined within the disclosure. The disclosure refers to dependencies among tables at page 18 line 31

through page 19 line 7; however the cited passages do not appear to describe a set of dependencies or define what is meant by the term. The disclosure does not appear to describe how the set of dependencies are determined? (note: The examiner has interpreted a dependency as relations information as taught by Ishihara et al.)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 4, 6, 7, 10, 12, 13, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara et al. US Patent 6,636,876 B1 in view of Ofek et al. US Patent 5,680,640.

Regarding claim 1, **Ishihara et al.** teaches a method for migrating data between a first database and second database [note: Abstract “a database copy apparatus, a database copy method, and a recording medium recorded with a database copy program, which increase the generality of a database copying irrespective of the database structure, by partitioning a copy **source database** into predetermined regions, and **copying records and inter-record connection relations** contained in the respective regions to a copy **target database**”; **Figure 7**, copy source database 70 and copy target database 90], the method comprising the steps of:

determining a set of dependencies among a plurality of tables in the first database [note: Figures 1-5; column 7 lines 1-19];

retrieving metadata from the first database, wherein the metadata includes definitions for tables in the first database [note: database extraction section 20 Figure 7; column 7 lines 20-60];

reading data from tables in the first database using a plurality of read operations, wherein the read operations are structured in accordance with the retrieved metadata, and wherein the read operations are in an order indicated by the determined dependencies [note: column 7 lines 20-60; column 10 lines 58-59 “In step 31, one entry is read from the extraction data file 62”]; and

writing data to a second database using a plurality of write operations, wherein the write operations are in an order indicated by the determined set of dependencies [note: column 7 lines 20-60; column 8 lines 33-40 “writes the extraction data into file storage section 60”; col. 1 line 55 through col. 2 line 17].

Although Ishihara et al. teaches the invention substantially as cited above, they do not explicitly disclose a read operation and a write operation. However, Ishihara et al. does teach reading data and writing data as part of a copy technique. **Ofek et al.** teaches a *read operation* or a *write operation* as part of a data read request and/or data write request when migrating data from a first storage device to a second storage device [see: column 2 lines 39-48]. It would have been obvious to one of ordinary skill at the time of the invention to have combined Ofek et al with Ishihara et al. because a read operation and a write operation would allow Ishihara et al’s system to read and write data to a storage medium.

9. Regarding claim 4, “performing a predetermined modification operation on the data read from the tables in the first database prior to a write operation to the second database” [note: column 8 lines 5-12 prior to a data extraction from a storage location data is added (i.e. an update process occurs)].

10. Regarding claim 6, “wherein the first database and the second database have dissimilar schemas” [note: Ishihara et al. column 11 lines 34-40 systems are not limited

to the same format; also note Ofek et al. teaches an interface/communication ability when systems are incompatible column 4 lines 23-27].

11. The limitations of claims 7, 10, 12, 13, 16 and 18 parallel claims 1, 4 and 6; therefore they are rejected under the same rationale.

12. Claims 2, 3, 5, 8, 9, 11, 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara et al. US Patent 6,636,876 B1 in view of Ofek et al. US Patent 5,680,640 and Underwood US Patent 6,633,878 B1.

Ishihara et al. and Ofek et al. teach the invention substantially as applied to independent claims 1, 7, and 13 above; however they do not explicitly teach use of a markup language. Regarding claims 2, 8 and 14 Ishihara et al. teach storing the determined dependencies to identify table dependencies [see: column 8 lines 35-40 “writes the extraction data into the file storage section 60”]; however they do not explicitly state that it is done using markup language. **Underwood** teaches a conventional architecture such as a client/server system that communicates using an HTTP protocol and the data is transmitted typically in the format of a standard hypertext markup language [see: column 1 lines 46-60 standard hypertext markup language (HTML) format]. It would have been obvious to one of ordinary skill at the time of the invention to have combined Underwood with the cited references since HTML format is a well know

standard format, and also provides compatibility among both similar and different platforms when transmitting data.

13. Regarding claims 3, 9 and 15, “storing the retrieved metadata” [note: Ishihara et al. “writes the extraction data into the file storage section 60” column 8 lines 35-40].

14. Regarding claims 5, 11, and 17, “storing the predetermined modification operation” [note: Ishihara et al. column 7 lines 30-60 “after extracting the data from the storage location 1 of the copy source database DB and prior to data extraction from the storage location 2, record “b313” is added to the storage location 1. In this case, an update difference such as shown in FIG. 3, section (B) is acquired”].

Response to Arguments

15. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

In the response Applicant argued the following:

ARGUMENT: Claims 1-18 were rejected under 35 USC 112 first paragraph as failing to comply with the written description for the limitation “first database” and “second database”. Applicant states the terms refer to source database and target database, and submit amended drawings clarifying support for the database structures.

RESPONSE: Applicants amended drawings and response overcomes the rejection.

ARGUMENT: Claims 1-18 were rejected under 35 USC 112 first paragraph as failing to comply with the written description for the limitation “set of dependencies”. Applicant states the generic phrase “set of” is a common English phrase that refers to a group or an association of one or more generic entities. Thus the phrase “a set of dependencies” would be commonly interpreted by anyone as “a plurality of dependencies”, “a group of one or more dependencies”, or “an association of one or more dependencies”. Applicant argues that the term “set of” is not a technical term and have not used it in a manner against common usage.

RESPONSE: The examiner respectfully maintains the rejection cited under 35 USC 112 first paragraph with respect to the limitation “set of dependencies”. Applicant appears to have misinterpreted the rejection. The rejection is based on the written description requirement. Applicant has not clarified support for the term within the disclosure. Yes, a set of dependencies can refer to a grouping of one or more dependencies; however the disclosure does not make reference or clarify this point. Also, Applicant has not specifically stated how a dependency should be defined. Applicant has not clarified the cited passage at page 18 line 31 through page 19 line 7 cited by the examiner in the rejection (Note this passage talks about a set of information; however the information sets appear to reference a combination of information and not dependency information alone). The scope of a plurality of dependencies is not the same as a set of dependencies or grouping. The term “set of dependencies” as opposed to simply stating

dependencies is important in understanding the structure of the invention, and an enabling disclosure.

Note newly cited rejection under 35 USC 103(a) and 35 USC 101 *supra*.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greta L. Robinson whose telephone number is (571)272-4118. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Greta L. Robinson/

Primary Examiner, Art Unit 2168

/Tim T. Vo/
Supervisory Patent Examiner, Art
Unit 2168

April 2, 2008